

# Transperineal template biopsy of prostate

This leaflet should help to answer some of your questions about having a transperineal template biopsy of your prostate. If you have any further questions, please speak to your doctor or nurse.

## What is a prostate biopsy?

The prostate gland is about the size of a walnut but it can enlarge significantly with age. Your prostate gland is located just below your bladder and in front of your back passage. Its function is to produce white fluid that becomes part of your semen.

In a prostate biopsy small samples of tissue are taken from your gland. The samples are sent to be examined under a microscope by a pathologist. It can take between two to three weeks until the results will be available.

## Why do I need a prostate biopsy?

There are a number of reasons why you might have been advised to have a prostate biopsy:

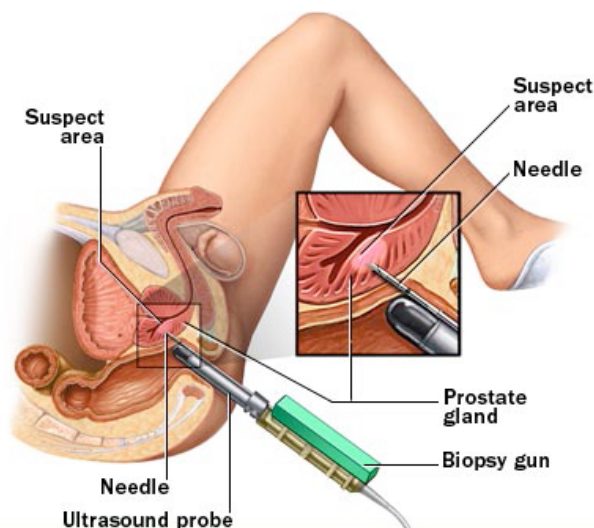
- Your doctor or nurse specialist may have found a lump or abnormality during a digital rectal examination.
- You may have had a blood test showing a high level of prostate-specific antigen (PSA) PSA is a protein that is released into the blood stream from your prostate gland. High levels of PSA may indicate cancer.
- You may have had previous biopsy results that came back with no evidence of cancer but your PSA blood test is still suspicious.
- You may have a known diagnosis of prostate cancer that has not required treatment and your doctor/nurse specialist might want further information to plan for possible treatments or observation.

The prostate biopsy can find out whether any of your prostate cells have become cancerous or, if you have pre-existing cancer, whether the cancer has changed. It can also diagnose other conditions such as benign prostatic hyperplasia (the typical enlargement of the prostate) or prostatic intraepithelial neoplasia (PIN), which is a change in the cell type but not cancer.

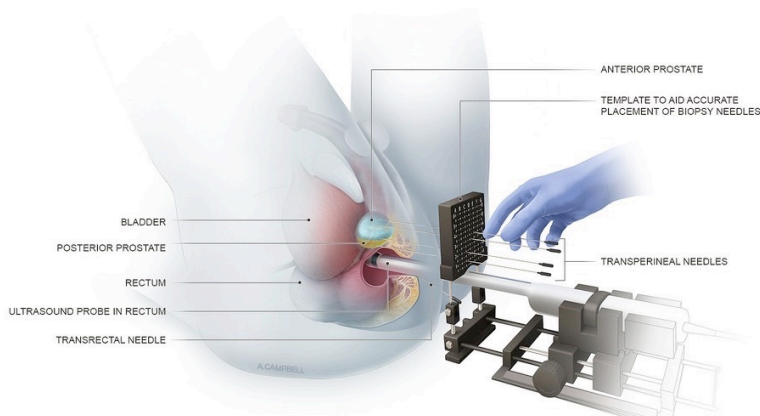
## How is the biopsy done?

The biopsy may be performed in two ways:

**Transrectal biopsy:** You will be lying on your side, just as when you had your prostate examined. Using an ultrasound probe in your back passage to guide us, a special needle is inserted into your prostate gland via your rectum to take samples.



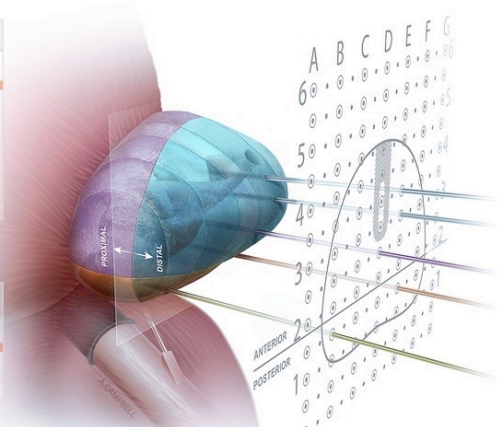
**Transperineal template biopsy:** This type of biopsy is an alternative method for sampling the prostate compared to the traditional transrectal method. It involves taking the biopsy through the skin of the perineum (the area between scrotum and rectum). It is usually performed under general anaesthetic or sedation. The technique can be used to accurately assess the whole prostate for cancer and when used after an equivocal prostate MRI can clarify if any cancer is present. Mapping involves biopsies taken from all zones throughout the prostate every 5-10mm. Transperineal biopsies can also be targeted to suspicious areas on MRI only.



By using a special grid samples can be taken from all areas of your prostate. The biopsy needles are guided into position using ultrasound. 24-50 samples are taken depending on the size of your prostate. After the procedure we apply a firm dressing to your perineum. The procedure takes between 30-45min to complete.

TEMPLATE BIOPSY ZONES			
DISTAL PROSTATE		PROXIMAL PROSTATE	
PERIPHERAL ZONE	PERIPHERAL ZONE	PERIPHERAL ZONE	PERIPHERAL ZONE
CENTRAL ZONE		CENTRAL ZONE	
TRANSITIONAL ZONE		TRANSITIONAL ZONE	

RECTAL BIOPSY ZONES			
DISTAL PROSTATE		PROXIMAL PROSTATE	
	PERIPHERAL ZONE		PERIPHERAL ZONE



## What are the risks?

There are risks in every procedure; however, serious complications with this procedure are rare.

**Infection** can occur in about 1% of patients. Antibiotics are prescribed during the biopsy to reduce the risk of infection. However, if a fever develops, or if there is pain when passing urine, then it is recommended that medical attention is sought. Life-threatening infection (sepsis) is rare (1 in 500).

**Blood in the urine** is not uncommon and increasing fluid intake to flush the system should clear out any bleeding. However, if this persists medical attention to clarify the situation should be sought.

**Blood in the semen** is common and can take up to 3 months to clear. Some men experience problems with erections but rarely need medication to help.

The **perineal skin can get bruised** in most men but rarely does bruising occur over the scrotum. This bruising can take 2-4 weeks to resolve. It is possible that the biopsy may cause prostate swelling that can lead to **difficulty passing**

**urine.** This may mean that a catheter is required and you should consult your urologist for their advice. This happens in about 5-10% of cases.

**Allergic reactions** are possible when medication is taken, - supplying a detailed medical history of previous allergic reactions will reduce the risk of this occurring. If an allergic reaction appears please consult your doctor or visit the nearest hospital.

## What will happen if I choose not to have a transperineal template guided biopsy?

We can monitor the prostate problem in association with your GP using PSA blood tests. If you had an MRI we might wish to sometimes repeat this. Your doctor or specialist nurse will discuss this with you.

## What should I expect before the procedure?

You will usually receive an information leaflet and a **prescription for medication before your biopsies**. One of the drugs prescribed is a capsule that should relax your prostate and help you pass urine after the procedure. It should normally be started about a week prior to the biopsies and we recommend that you stay on the medication for at least a fortnight after the procedure. You will also receive bowel preparation to clear your back passage in preparation for the probe insertion: to make sure we can see your prostate clearly during the biopsy we recommend a small enema on the night before the biopsy and two glycerine suppositories on the morning of the examination. An antibiotic is supposed to help prevent a possible infection.

You will be admitted to hospital on the same day as your procedure. Mapping biopsies are usually carried out under general anesthetic or deep sedation. You should have received a separate appointment for a "preoperative assessment" to check your fitness and to screen you for MRSA. Once you have been admitted, you will be seen by members of the medical team which may include the consultant, urology doctor or specialist nurse.

You will be asked not to eat or drink for six hours before the procedure.

If you are taking **warfarin** or any other **blood-thinning medication**, you must inform the clinic staff at your preoperative assessment so that you can be advised when to stop it before the surgery. If you are taking **aspirin**, you do not need to stop this. If you are taking **clopidogrel**, you must let the medical staff know because the biopsy may need to be postponed or alternative arrangements made. There are other blood thinning medications that might also need to be stopped. Your medical team will inform you of this.

Please tell your surgeon (before your procedure) if you have any of the following

- An artificial heart valve
- A coronary artery stent
- A heart pacemaker or defibrillator
- An artificial joint
- An artificial blood vessel graft
- A neurosurgical shunt
- Any other implanted foreign body
- A regular prescription for warfarin, aspirin or clopidogrel
- A previous or current MRSA infection
- A high risk of variant CJD (if you have had a corneal transplant, a neurosurgical dural transplant or injections of human-derived growth hormone)

You will be asked to sign your **consent form** giving permission for your procedure to take place, - showing you understand what is to be done and confirmed that you want to go ahead. Make sure that you are given the opportunity to discuss any concerns and to ask any questions you may still have before signing the form.

## What can I expect when I get home?

You will get some blood in your urine, which may last several days, often with the occasional blood clot. We advise you to drink plenty of fluid. You will often see blood in your semen for up to three months. If you are suddenly unable to pass urine at home, please contact your GP immediately or attend your local casualty. Try and take it easy for the first 3-4 days after your biopsy. You will need to finish your course of antibiotics and any other tablets that have been dispensed by the hospital. If you require catheterisation, we will arrange a date for a clinic visit to remove

the catheter. In the unlikely event that you will then still not be able to pass urine, we will make further arrangements for your follow-up. It currently takes up to four weeks until the results of the microscopic examination of your samples are available. We will discuss the result of your biopsies in a separate clinic appointment.

Please do not hesitate to contact the hospital in case of any problems or concerns. In acute cases please attend our A&E department.

Christian Seipp  
Consultant Urological Surgeon